Comments

E-0055/022

DOE lacks basic knowledge about subsurface fate and transport. DOE has been repeatedly embarrassed by the failure of models to withstand the tests of time. The Board has little confidence that DOE can predict the future impacts or risks from its proposed actions with any certainty. Lacking such analysis capability for impacts to the soil and groundwater immediately beneath the proposed waste disposal facilities, DOE lacks the basic information required to make decisions about the sizes, locations or designs of these facilities.

L-0044/028

[Vol. I, Sec. 3.5, App. L.] (Re: Comment # 171) Although cumulative impacts are discussed (e.g., SAC model), limitations of the assessment are not described in a meaningful way.

TLG-0011/001

The plain fact of the matter is all those pretty differential equations, and I taught them, have to do with homogeneous media, in other words, everything looks the same. It's all sand or it's all nice soil and all of that stuff. When you start looking at anybody that's rafted these rivers or climbed these canyons understands perfectly what the situation is. You see all those cracks, those fissures. It [predicting the amount of radioactive material that has reached the Columbia River] would be like trying to predict what a marble shot up into a pinball machine is going to do. I dare anyone to do that. Of course, it's undoable. That's exactly the situation we face, which we're faced with. That's why it's crucial to get the water stopped. All the leakage has to be stopped. There will be no predicting this, let's be clear about that. All of that stuff needs to be kept into account. A lot of this stuff is, in fact, fairly easy in intuit. The other one that needs to be mentioned, any solution that talks about incasing, storing, or shielding, this stuff's energetic. It's radiation. It transmutes by definition. Anything it hits starts to get brittle, starts to crack, starts to change. It denatures stuff. Literally, that's what it does. And that's why there's a lot of unknowables in all of this

Response

The impact evaluation models (groundwater, air, exposure, transportation) are discussed in Volume I Section 5 and the Volume II appendices. The assessments in the HSW EIS are based on the data and assumptions used in these models. Limitations and uncertainties in modeling, data, and assumptions are discussed in Volume I Section 3.5 and throughout the HSW EIS Volumes I and II.

Comments

L-0034/005

The SEIS provides sophisticated modeling output data, as well as a cumulative risk analysis, but does not present a complete inventory of either radionuclides or conventional hazardous waste contamination already at Hanford. In fact, because of the lack of characterization of much contamination, both on site and from imported waste streams, which provide input data to the models, model output data would appear to be suspect.

Response

The impact evaluation models (groundwater, air, exposure, transportation) are discussed in Volume I Section 5 and the Volume II appendices. The assessments in the HSW EIS are based on the data and assumptions used in these models. Limitations and uncertainties in modeling, data, and assumptions are discussed in Volume I Section 3.5 and throughout the HSW EIS Volumes I and II.

Hazardous chemicals in MLLW have been characterized and documented since the implementation of RCRA at DOE facilities beginning in 1987. MLLW currently in storage, and MLLW that may be received in the future, would be treated to applicable state or federal standards for land disposal. Therefore, disposal of that waste is not expected to present a hazard over the long term because the hazardous constituents would either be destroyed or stabilized by the treatment. Inventories of hazardous materials in stored and forecast waste

are either very small, or consist of materials with low mobility. See Volume II Appendixes F and G.

Inventories of hazardous chemicals in waste were not generally maintained by industries in the United States prior to the implementation of RCRA. Consistent with these general practices, inventories of hazardous chemicals in radioactive waste were not required to be determined or documented before the application of RCRA to radioactive mixed waste at DOE facilities in late 1987. Wastes placed in the LLBGs before late 1987 have not been specifically characterized for hazardous chemical content, but they have been evaluated in the EIS alternatives relative to their radionuclide inventories. In addition, preliminary estimates of chemical inventories in this waste have been developed for analysis in the HSW EIS, and a summary of their potential impacts on groundwater has been added to Volume I Section 5.3 and Volume II Appendix G.

In addition, the October 23, 2003 Settlement Agreement contains proposed milestones in the M-91-03-01 Tri-Party Agreement Change Package for retrieval and characterization of suspect TRU waste retrievably stored in the Hanford LLBGs (United States of America and Ecology 2003). As part of that agreement, DOE will manage the retrievably stored LLBG waste under the following assumptions: (1) all retrievably stored suspect TRU waste in the LLBGs is potentially mixed waste; and (2) retrievably stored suspect TRU waste will be managed as mixed waste unless and until it is designated as non-mixed through the WAC 173-303 designation process.

Interactions among different types of waste that could potentially mobilize radionuclides have also been considered as part of the HSW EIS analysis. However, such interactions typically require specific chemical environments or large volumes of liquid as a mobilizing agent, neither of which are known to be present in the solid waste disposal facilities currently in use (see discussion in Volume II Appendix G). Possible effects of this type could be mitigated by selecting candidate disposal sites to avoid placing waste in locations where previous contamination exists.

Waste sites and residual soil contamination remaining at Hanford over the long term, and which are not specifically evaluated as part of the HSW EIS alternatives, have been evaluated previously as part of NEPA or CERCLA reviews. In those studies, the risks associated with older solid waste burials, tank waste residuals and leaks, and contaminated soil sites were found to be very small, even for alternatives that considered stabilization of the waste in place (DOE 1987, DOE and Ecology 1996, Bryce et al. 2002). Further evaluation of tank wastes is anticipated in the "Environmental Impact Statement for Retrieval, Treatment, and Disposal of Tank Waste and Closure of Single-Shell Tanks at the Hanford Site" (68 FR 1052). The cumulative groundwater impacts analysis in the HSW EIS also includes those wastes, as described in Volume I Section 5.14 and Volume II Appendix L.

DOE plans to characterize pre-1970 inactive burial grounds and contaminated soil sites, as well as the active LLBGs considered in the HSW EIS alternatives, under the RCRA past practice or CERCLA processes to determine whether further remedial action would be required before the facilities are closed. As part of that process, the long-term risks from these wastes would either be confirmed to be minimal, or the waste would be remediated by removal, stabilization, or other remedial actions to reduce its potential hazard. In all cases, the impacts from these previously disposed wastes would be the same for all alternative groups considered in the HSW EIS, and would not affect the comparisons of impacts among the alternatives or the decisions made regarding disposal of waste received in the future.

Comments

TPO-0007/003

We're concerned about the tone of the Environmental Impact Statement also. This statement was intended to tier down from the Programmatic EIS, and should have analyzed whether the decisions made in the Programmatic EIS were right for Hanford. Instead, it assumes they are right for Hanford and tries to analyze the impacts.

Response

The HSW EIS evaluates the consequences of various site-specific alternatives to the ongoing waste management program at Hanford, consistent with WM PEIS decisions regarding certain TRU, LLW, and MLLW streams. A discussion of the WM PEIS and other NEPA review documents relevant to the HSW EIS can be found in Volume I Section 1.5.

Comments

L-0039/002

The Board has previously advised the Department of Energy (DOE) to analyze the cumulative impacts from all Hanford wastes on Hanford soil, groundwater, the Columbia River and the people living downstream from Hanford. DOE has promised this analysis since 1997 in the Waste Management Programmatic EIS (WMPEIS). This HSW EIS provided DOE the appropriate opportunity to conduct that analysis. DOE chose not to.

L-0039/003

The revised draft HSW EIS is not a site-wide EIS. We advise DOE to first integrate all Hanford-specific actions into a Hanford site-wide EIS to determine the aggregate impacts from all Hanford cleanup actions and decisions. Once that is done, then DOE can perform an analysis of the impacts of receiving, treating and disposing of offsite wastes destined for Hanford, combining the results of that analysis with the Hanford-only waste analysis to achieve a truly cumulative analysis of the impact of DOE's proposals.

Response

The HSW EIS evaluates the consequences of various site-specific alternatives to the ongoing waste management program at Hanford, consistent with WM PEIS decisions regarding certain TRU, LLW, and MLLW streams. A discussion of the WM PEIS and other NEPA review documents relevant to the HSW EIS can be found in Volume I Section 1.5.

The HSW EIS uses the definition of cumulative impact as defined by the CEQ Regulations (40 CFR 1508.7): "Cumulative impact" is the impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. Potential cumulative impacts associated with implementing the HSW EIS alternative groups are summarized in Volume I Section 5.14. Past, current, and future Hanford activities include treatment and disposal of tank waste, CERCLA remediation projects, previously disposed of waste, decontamination and decommissioning of the Hanford production reactors and other facilities, waste in the PUREX tunnels, operation of a commercial LLW disposal facility by U.S. Ecology, and operation of the Columbia Generating Station by Energy Northwest. Cumulative impacts of storage, treatment, and disposal activities for a range of waste volumes are evaluated and expanded in the final HSW EIS. For most resource and potential impact areas, the combined effects from the alternative groups for the Hanford Only, Lower Bound and Upper Bound waste volumes, or for the No Action Alternative for the Hanford Only and Lower Bound waste volumes, when added to the impacts of these other activities, are small.

Comments

L-0055/037

There is very little discussion on the capacities of the remainder of the waste complex and a comparison and projection of waste, final treatment and disposition and location to be stored. It is very difficult to understand this decision without knowledge of the total volume of waste nation wide[;] how much existing capacity is at the Waste Isolation Pilot Plant in New Mexico, Yucca Mountain and the Nevada Test Site and what the limits may be. Decisions at those facilities will ultimately translate into waste either staying at Hanford or coming to Hanford. What is the projected volume of commercial high level waste as opposed to federally owned? What is the capacity at Yucca Mountain? Will WIPP be able to receive all of Hanford TRU waste including remote handled and oversized containers?

Response

The HSW EIS evaluates the consequences of various site-specific alternatives to the ongoing waste management program at Hanford, consistent with WM PEIS decisions regarding certain TRU, LLW, and MLLW streams. A discussion of the WM PEIS and other NEPA review documents relevant to the HSW EIS can be found in Volume I Section 1.5.

Retrieval of TRU waste from the LLBGs has already started. Shipments of TRU waste from Hanford to WIPP have also started. As indicated in the Hanford Performance Management Plan (HPMP, DOE-RL 2002), approximately one-third of the containers (fifteen thousand containers) of suspect TRU waste from the LLBGs are scheduled to be retrieved by 2006 . No substantial releases are expected to occur before the waste is retrieved.

Project volumes of HLW and available disposal capacity at Yucca Mountain are addressed in the Repository EIS. The WIPP SEIS-2 (DOE 1997c) addresses the capacity to dispose of TRU waste, including the projected inventories from Hanford.

Comments

TPO-0018/003

Certainly the information that was presented in the EIS, it's very clear, it's not going to solve anything.

Response

The HSW EIS provides important environmental information to assist DOE in making decisions about site-specific storage, treatment, and disposal actions at Hanford.

Comments

L-0041/003

Oregon finds the revised HSW-EIS a significant improvement to the previous draft document. Many of the comments we submitted in August 2002 were sufficiently addressed in the revised document.

TSE-0025/003

And so if the Department of Energy is not going to produce an Environmental Impact Statement that honestly says what the costs of producing that waste are, what the costs of mishandling that waste are, then the people are going to have to do it ourselves, are going to have to take the law into your own hands and use the initiative process to do what Congress has failed to do.

Response

The HSW EIS provides important environmental information to assist DOE in making decisions about site-specific storage, treatment, and disposal actions at Hanford.

NEPA Compliance

DOE believes this HSW EIS complies with applicable NEPA requirements.

Comments

TLG-0012/002

I, for one, favor a new document that addresses the concerns raised by both the citizen groups and the state agencies here [the LaGrande Public Meeting].

TSE-0011/009

I would suggest that it be put in abeyance, and that at such time as the current waste can be both analyzed in a proper manner and cared for properly, then it could be reinstituted.

Response

DOE believes this HSW EIS complies with applicable NEPA requirements.

Comments

L-0041/063

Oregon is concerned that critically important assessments of human health and ecological effects are based upon incomplete analyses. National Environmental Policy Act (NEPA) guidance says an EIS must examine the impacts of proposed actions – in this case, the impacts of additional waste disposal at Hanford – in order to demonstrate there will be no major adverse environmental impacts from the proposed actions. Otherwise, other proposed alternatives must be developed. The analyses and information provided are not sufficient to know whether the proposed actions meet this test.

Response

DOE believes this HSW EIS complies with applicable NEPA requirements.

Hanford is part of a nationwide cleanup effort of over 100 DOE sites and cooperates with these sites in the cleanup. As part of that effort, Hanford would receive some LLW, MLLW, and would temporarily store some TRU waste from other DOE sites, as well as send HLW, spent nuclear fuel, and TRU waste to other DOE sites. The HSW EIS evaluates a range of waste receipts at Hanford to encompass the uncertainties regarding quantities of waste that would ultimately be managed at the site. The waste volumes evaluated include a Lower Bound waste volume consisting mainly of Hanford waste, and an Upper Bound volume that includes additional quantities of offsite waste that Hanford might receive consistent with WM PEIS decisions. The HSW EIS includes an evaluation of Hanford Only waste. The Hanford waste evaluation provides a basis with which to determine the impacts of varying quantities of offsite waste at Hanford. Evaluations in the WM PEIS, the HSW EIS, and related NEPA documents indicate that additional wastes could be handled at Hanford without complicating future remediations, or diverting resources or disposal capacity from other Hanford cleanup activities. Information on the potential impacts of transporting waste has been revised and is presented in Volume I Section 5.8 and Volume II Appendix H.

Comments

E-0043/026, EM-0217/026, EM-0218/026, L-0056/026, LM-0017/026, LM-0018/026

Analysis of the possibility that the Yucca Mountain facility may not accept the cesium-strontium capsules for disposal. DOE admits that the disposal path for these capsules has not been determined, and merely assumes the disposition to be Yucca Mountain. The EIS should quantitatively analyze and report on alternative disposal paths so the reader can understand the impact in the event that these capsules are not disposed at Yucca Mountain. Further, Yucca Mountain could fill up quickly with commercial HLW, leaving no room for the cesium-strontium capsules or Hanford waste assumed to be disposed there.

Response

DOE NEPA decisions and actions regarding the cesium and strontium capsules are not within the scope of the Hanford Solid Waste EIS. Disposal of cesium and strontium capsules at Yucca Mountain were evaluated in the Yucca Mountain Repository EIS (DOE 2002c).

Comments

L-0044/013

In the way that this EIS is constructed, no information shows the groundwater impact differences for disposing ILAW in 200 East versus 200 West. Until this level of analysis is demonstrated, this EIS cannot be used as a basis for any siting study picking the best disposal locations. Ecology will need this kind of information prior to making permit decisions. We expect that this information would be in this NEPA document or to be provided to us to support the permit application.

Response

The HSW EIS, as a NEPA document, is not intended to function as, or contain the same information as, a compliance agreement, a permit application, or a management plan under other Hanford regulatory programs. The HSW EIS provides information to support DOE's decision-making process at Hanford, and DOE recognizes that additional specific information will be needed to support future regulatory processes.

The EIS evaluates four different disposal locations for ILAW, including locations in the 200 East and 200 West Areas.

Comments

TSE-0031/010

It [the DEIS] does not include TRU waste.

Response

The scope of the HSW EIS is to evaluate the potential environmental impacts of ongoing activities of the Hanford Solid Waste Program and to evaluate implementation of alternatives consistent with the WM PEIS. The HSW EIS evaluates reasonably foreseeable treatment, storage, and disposal facilities and activities for LLW, MLLW, and TRU waste. It also evaluates disposal of ILAW in a form that has performance characteristics equivalent to borosilicate glass.

Comments

TSE-0010/001

This Draft Solid Waste Environmental Impact Statement does include an alternative, to stop off-site waste import to Hanford. But only as part of an alternative that stops all cleanup work at Hanford. This stop work alternative is not realistic. It's not a realistic alternative at all. The U.S. Department of Energy does admit this. They do admit that it's also noncompliant with the law. But it is included.

Response

The Hanford Only waste volume has been evaluated in all action alternatives and the No Action Alternative to provide a better comparison with the impacts of adding offsite waste. The incremental impacts of offsite waste are the differences between the Lower and Upper Bound Volumes and the Hanford Only impacts for a given alternative.

DOE agrees that the stop work scenario (which is not the same thing as the No Action Alternative) is unrealistic and it has been dismissed from consideration. See Volume I Sections 3.1 and 3.2.

Comments

E-0048/001

Thank you for extending the comment period so more members of the public, including me, could participate.

E-0056/001

As a member of our local community I would like to offer my full support of the Department of Energy's decision to repackage complex wide radioactive wastes including transuranic wastes.

F-0029/001

Thank you for the DOE's public meeting today in Portland to receive comments regarding the revised EIS for Hanford and for this second EIS's inclusion of issues brought up by citizens at earlier meetings and comment periods.

L-0014/012, L-0022/012

We support the continued disposal of naval reactor compartments at Hanford and the disposal of commercial nuclear wastes in the US Ecology burial ground.

L-0018/001, TSE-0001/001

First of all, I would like to thank the Department of Energy for having this hearing in Seattle today, and recognizing that decisions we make at about managing radioactive wastes at the Hanford site have state-wide implications and draw state-wide concerns. Decisions we make in the Environmental Impact Statement will contribute to the legacy that we leave our children and future generations.

L-0029/001

I am grateful to be allowed to express my observations of the Hanford Waste Program E.I.S. I love my state and am thankful for all the effort work that has gone into the project so far to clean up 60 years of the most poisonous substances known to man.

L-0029/002

The document correctly states that unknown factors are many and the future outcome can only be guessed at.

L-0041/001

Thank you for the opportunity to comment on the Revised Draft Hanford Solid Waste EIS (HSW-EIS, DOE/EIS-0286D, March 2003). Thank you; also, for recognizing the high degree of interest Oregon citizens have about Hanford issues by conducting seven public meetings in Oregon. We appreciate the 15 day extension of the comment period, which we have had requested and which was also requested by Oregon Senators Gordon Smith and Ron Wyden.

L-0044/090

Sec. 1.7.1.3, p. 1.33 We appreciate that DOE has clarified that some TRU wastes contain hazardous constituents and are subject to RCRA and state regulation, though we regret that the category of TRU-Mixed (TRUM) used in earlier NEPA documents cited in Section 1.5 has been abandoned.

L-0044/091

Sec. 1.7.2, p. 1.34 We appreciate that DOE has separated out and analyzed a Hanford-only volume, as we and many others requested in the original 1997-8 scoping period.

L-0044/096

CRD, 3.105 Original comment #131 cited the inadequate monitoring systems detecting releases to the soil and groundwater from LLBG trenches. DOE's response was, in part, "Groundwater monitoring is conducted according to the RCRA permit and TPA requirements for the disposal areas, and will be expanded as necessary according to agreements between DOE and regulatory agencies to support future waste management operations." DOE's response confirms the need for thorough groundwater and vadose zone

monitoring considerations in development of the final LLBG permit conditions.

E-0049/001, L-0048/001

The Oregon Hanford Cleanup Board (Board) appreciates the opportunity to comment on the Revised Draft Hanford Solid Waste EIS (revised EIS). Thank you for recognizing the significant interest of Oregon citizens in Hanford issues. We also appreciate the 15-day extension of the comment period, as requested by Oregon Senators Ron Wyden and Gordon Smith and by the Oregon Department of Energy.

L-0058/003

The welfare of mankind, flora and fauna, the purity of water and air, the freedom from exposure to nuclear waste forever should be our nation's principle. Public law and government actions should invariably enforce this principle.

L-0059/002

Regarding the "Areas of Controversy" on page S.42, I have two thoughts. First, receipt of offsite waste should be permitted, just as Hanford sends part of its excess and waste materials to other sites. In order to clean up the entire DOE complex, it is reasonable to accumulate certain types of materials in select places to reduce the overall cost of security and long-term stewardship to our nation. Second, I feel that enough is known about transportation impacts to proceed without reanalysis as part of this HSW EIS. WE need to get on with the work of cleaning up the Hanford site rather than refusing to finalize agreements, resulting in the filing of lawsuits.

L-0060/001

The EIS study is a very good starting point and with each effort for a solution over the years they will have to amend the document. Attempting to project solutions into the future are only guess and a good guess is what we end up with.

L-0060/003

A revised environmental impact statement (EIS) for managing radioactive and solid waste is better than the original, but it's good enough for the next several years. The editors are to be complemented for their work. Time and new knowledge will be the amending factors. Future generations will be making the decisions.

L-0062/001

We [Hanford Communities] appreciate the work of the Department of Energy to address many of the comments and suggestions you received on the previous draft. The second draft also contains much more detail and analysis than the original draft.

L-0062/002

We [Hanford Communities] support the DOE preferred alternative for storage treatment and disposal of Hanford waste. We endorse the determination that new disposal facilities will include a RCRA-compliant liner and a leachate collection system and, upon closure, will be capped with the modified RCRA subtitle C cover. This approach will assure that the design of the new disposal facilities will minimize the impact to the environment and groundwater at Hanford.

P-0005/001

I'm sick of these NIMBY'ers AND I SAY YOU GO AHEAD ON. I TRUST OUR President to know WHAT he's doing. THANKS FOR TAKING ON A TOUGH JOB!

P-0049/001

I am in favor of using the Hanford Reservation as a temporary storage facility for spent nuclear residue and nuclear waste.

The opposition to this program is not based on hard evidence and common sense. They imply that the nuclear waste will be dumped haphazardly and the whole process will be unprofessional.

I trust that you will do it right.

P-0066/001

I think Hanford is the best place to store radioactive waste in the area. It is sure better to keep it in one area then to have the waste in every state.

P-0112/002

I agree with WA state's Attorney General that shipping TRU to Hanford from Ohio & CA violates the law.

P-0117/001

TEXAS IS A MUCH BETTER PLACE FOR THIS STUFF [radioactive waste]

P-0131/002

There are several viable alternatives to destructive energy schemes. You know as well as anyone that the only reason for using the worst one, nuclear, is because it puts the most possible money into the fewest possible hands.

P-0160/002

Thousands of us are FED UP with being downwinders!

P-0164/002

Please kill this proposal which could kill us.

THR-0004/002

The document is improved. The previous document was skimpy, and it didn't make it, and DOE quickly made the decision, we've got to do better, so they did hear the public.

THR-0009/002

[One basic flaw of the EIS] is the whole notion of disposal, which I know we all use, but we can only make something that's radioactive as stable as possible in the most protected manner possible. We can't really dispose of these things. So I would like to see the word disposal removed from the whole statement.

THR-0013/001

We're going to have a real problem with this [SW EIS] because the people of the Northwest don't really count very much because it's all about money, it's all about power, it's all about population. … The people that have the power, that have the money, that have the resources, are what's controlling the country, and they're controlling this. You can't blame the President. It's the system.

THR-0015/001

How many people are from the Columbia River Gorge Commission? Where are they? Why aren't they here? How many of you know people on the Columbia River Gorge Commission? Get on them. Get on them now, right now. They should be responsible for what's happening on here. Definitely. And the Nature Conservancy. Who's from the Nature Conservancy here? Multi billion dollar corporations. They are connected in with the Congress, too. They took 50 million dollars out of the State of Oregon tax free. 736 million dollars in one year. Tax free money. They have a role over in Congress, too. They should be involved in what's happening in the Northwest.

TLG-0002/002

We [Oregon Office of Energy for Nuclear Safety] also commend the Department of Energy for greatly improving this document.

TLG-0012/001

And I appreciate this format that you've provided for us here tonight. I think it's an improvement over the last one we had here, where there's a lot more input from citizen groups and from state agencies.

NEPA Compliance

TPO-0006/001

DOE has done some work in improving the document. … Some of the things in the EIS, from what we've seer initially, appear to have addressed some of the concerns about lined versus unlined tanks, trenches in some cases. There's an attempt to do a risk analysis. Although, Greg mentioned that he has concerns about that. And we'll take a close look at it. And there is a discussion of a treatment capability that goes far beyond what was in the first document. And we think those are positive developments.

TPO-0007/001

We also consider that this is a much-improved document over the previous one

TPO-0011/011

But I would like to talk about the larger picture briefly too. Which is basically what this is really about. And it's always the same thing, it's always about money. The government takes our money to subsidize nuclear, and its cleanup, and all the nuclear capacities…we are keeping energy industry centralized. Alternative methods are not being found.

TSE-0009/001

I stand in opposition to this plan to bring in 70,000 truckloads of waste to Hanford.

TSE-0024/004

I would like to comment on the light pollution, that is very good, something to consider.

TSE-0030/001

I do want to acknowledge and tell you that I appreciate the fact that DOE did have a public meeting in Spokane. I know that was in the plan. And that was appreciated. And believe it or not, when you do things right, sometimes people do notice.

TSP-0001/006

I think there have been great efforts made to clean up Hanford. I think those efforts should continue.

TSP-0015/001

And so some of the things that I think we really need to look at is how we can be proactive in the future, and having these meetings like this, I must thank you for this opportunity.

TSP-0015/004

And so when you are putting together this Final EIS, I encourage you to look at these medical cases and see if there is anything you can do to prevent future fires at Hanford from affecting other people, the surrounding populations, you know, from dealing with what Robert Frost and other co-employees have to deal with [after fire-related exposures].

TSP-0018/001

I think we should ship 70,000 truck loads to Crawford, Texas.

Response

Thank you for your comment.

Comments

TSE-0036/002

Who decides what risk that is going to be taken? What is the risk of so many cancers happening? I mean, it is not a formula that can be decided by scientists and bureaucrats who are going to be here for a few months, or a few years, and then they are moving on to the next scenario.

Response

Evaluations, such as EISs, are prepared to identify and quantify risks and to inform decision-makers. The risk of latent cancer fatalities from actions proposed in this EIS are presented in Volume I Section 5.11 and Volume II Appendix F.

Volume I Section 6 identifies the major statutes, permits, compliance agreements, and regulatory requirements followed in conducting operations at Hanford Site. Statutes include AEA, CERCLA, RCRA and the State of Washington Hazardous Waste Management Act. Volume I Section 6.3 discusses the TPA. Volume I Section 6.4 discusses the Dangerous Waste Management permit. Volume I Section 6.19 provides a summary of existing and potential permits (including state approved permits where state decision-making will be necessary) required to construct and operate treatment, storage, and disposal facilities related to the HSW EIS alternatives. Volume I Section 6 has been updated and revised in response to comments in the final HSW EIS.

Comments

TPO-0026/005

...this EIS really doesn't contemplate anything but an import action. It doesn't really look at treating waste really anyplace other than Hanford. It doesn't really consider treating it at a place that actually has adequate facilities, licensed in-place facilities in place before we start moving stuff. And finally, there's no real consideration of trying to do this in a place that doesn't already have contaminated groundwater and a contaminated river.

Response

The HSW EIS evaluates the consequences of various site-specific alternatives to the ongoing waste management program at Hanford, consistent with WM PEIS (DOE 1997b) decisions regarding certain TRU waste, LLW, and MLLW streams. Site-specific waste management actions at Hanford involve transportation, treatment and processing of TRU waste and MLLW, disposal of LLW, MLLW and ILAW, and storage of LLW, MLLW, and TRU waste. A discussion of the WM PEIS and other NEPA review documents relevant to the HSW EIS can be found in Volume I Section 1.5.

The WM PEIS was a comprehensive evaluation of DOE nationwide waste management. The WM PEIS evaluated a broad suite of alternatives for waste management across the DOE complex, including managing most waste at generator facilities, or consolidating waste management at fewer sites that have existing facilities suitable to accept waste from other facilities. The impacts of those alternatives were compared for a variety of waste volumes at different DOE sites, including larger quantities of waste than are evaluated in the HSW EIS. The general result of the WM PEIS was that radioactive and hazardous wastes generated at a DOE site should be disposed of at that site unless the site was not capable of or not technically able to support those actions. DOE determined there was sufficient information in the WM PEIS to support decisions regarding the sites that were suitable for long-term waste management missions. Those decisions included processing and disposing of Hanford waste at Hanford, and the importation of wastes from other sites that could not adequately handle them. Decisions made as part of the WM PEIS made Hanford available for the disposal of low-level waste and mixed low-level waste from other DOE generators. The initial WM PEIS decisions related to LLW, MLLW, and TRU waste were issued between January 1998 and February 2000.

The scope of the HSW EIS is to evaluate the potential environmental impacts of ongoing activities of the Hanford Solid Waste Program and to evaluate implementation of alternatives consistent with the WM PEIS. The HSW EIS evaluates reasonably foreseeable treatment, storage, and disposal facilities and activities for LLW, MLLW, and TRU waste. It also evaluates disposal of ILAW in a form that has performance characteristics equivalent to borosilicate glass.

The Hanford Only waste volume has been evaluated in all action alternatives and the No Action Alternative to

provide a better comparison with the impacts of adding offsite waste. The incremental impacts of offsite waste are the differences between the Lower and Upper Bound Volumes and the Hanford Only impacts for a given alternative.

Comments

E-0053/004

The proposed Determination of Non-Significance violates Washington's currently stated policy that "prior to accepting more waste from across the nation, the State of Washington must be assured that current waste management activities at Hanford are protective of human health and the environment and compliant with state and federal regulations, and the Tri-Party Agreement (TPA)", and Washington State's conclusion that Hanford "continues to struggle to achieve and maintain compliance" – rendering it inappropriate to allow additional offsite wastes to come to Hanford at this time. To implement Washington State's existing policy and conclusion about the status of compliance at Hanford, and concerns a) that offsite waste acceptance would negatively impact Hanford Clean-Up, and b) that storage and treatment of MW and TRU waste pose significant potential health and environmental impacts; Washington State must issue a Determination of Significance and only issue a RCRA permit after a full EIS is completed

Response

This comment is directed at Washington State, rather than the HSW EIS.

Comments

TSE-0028/005

And finally, let me just say, the Department of Energy has also asserted in Federal Court that it is exempt from Washington State and Federal hazardous waste laws for the storage of this transuranic waste. If it is exempt, bizarrely, it asserts in this EIS and the Waste Management PEIS that it will, all the accidents analyzed assume that the waste was treated to meet those standards. You have to redo it, and you have to assume and disclose that you are not treating these wastes or give up your claim of preemption.

Response

Discussion of pending legal issues is not within the scope of this EIS.

Comments

E-0055/011

USDOE chose to use Battelle as a contractor to draft major portions of this EIS, and to respond to comments – including responding to comments directly relating to the following areas for which Battelle has a clear conflict of interest and stake in the outcome of proposed decisions by USDOE based on the EIS:

- Battelle's own generation of waste at Hanford – which makes it a "responsible party" and "liable person" under the federal Superfund law and state Model Toxics Control Act (MOTCA – Chapter 70.105D, RCW);
- disposal of wastes;
- whether offsite generators should be charged the long-term, fully burdened costs of disposing of wastes;
- violation by USDOE and its contractors of RCRA and Washington Administrative Code requirements for establishing financial assurance for closure and monitoring of landfills;
- efforts to export waste from Battelle's Columbus and West Jefferson, Ohio facilities to Hanford;
- transportation risks and impacts from shipping Battelle's Remote Handled Low-Level and Remote Handled Transuranic, Low-Level and Mixed Wastes and, similar wastes from other sites, to Hanford;
- failure of offsite and on-site generators to properly track, characterize and label hazardous wastes shipped to Hanford's Low-Level Burial Grounds for disposal, … [sic]

This list names just a few of the numerous areas that Battelle was delegated responsibility for analyzing, writing and responding to comments regarding, and for which Battelle has a direct conflict of interest.

Battelle's self interest and financial interests are evident in other USDOE documents and decisions, including, in the September, 2002, Federal Register Notice of the amendment to the Record of Decision for TRU Waste to authorize shipment of TRU from Battelle Columbus Lab (BCL) to Hanford, and in court filings by USDOE (both declarations and briefs, including the declaration of Assistant Secretary of Energy Jessie Roberson) in response to the complaints brought against USDOE for violating NEPA by the State of Washington and citizen groups, including Heart of America Northwest.

In those documents, USDOE claims that Battelle has a contractual and financial interest in having USDOE ship waste offsite to Hanford, so that the Battelle West Jefferson and Battelle Columbus Labs can be redeveloped for private purposes of Battelle. In the Site Treatment Plan for BCL, BCL and USDOE stated that Battelle cancelled its Part B permit for its own "cost savings" permits, precluding storage of Mixed Wastes and necessitating their shipment to Hanford or other sites.

It is clear that a financial stake in a decision whose outcome is affected by the considerations in an EIS includes the private interest in redevelopment of property for other purposes following removal of wastes. Thus, whether or not USDOE owns the wastes at Battelle's sites, Battelle has a clear interest in decisions by USDOE to allow for the shipment of those wastes to Hanford, as well as interest in the decision as a liable party and generator. As specified below, Battelle interests are an impermissible conflict of interest under NEPA implementation regulations of the Council on Environmental Quality, Federal Acquisition Regulations and Department of Energy Acquisition Rules.

Further, Battelle's willful failure to disclose this conflict of interest irreparably harmed the public's right to comment on the draft EIS.

Battelle is in violation of USDOE regulations that require contractors who prepare an environmental statement to execute a disclosure specifying that they have no financial or other interest in the outcome of the project. 10 CFR 1021.310, 40 CFR 1506.5 (c). In the HSWEIS, Battelle certified that it had no financial or other interest in the outcome of the referenced EIS. HSWEIS at 7.20. Battelle misrepresented its interest in the outcome of the HSWEIS Record of Decision as both a liable person and potentially responsible party under CERCLA (42 USC 9601 et seq.) and Washington's Model Toxics Control Act (RCW 70.105D) as a generator of waste that has been, or may potentially be, released to the environment at the Hanford site, and

which is the focus of this EIS. Battelle has a significant financial interest in continuing to generate waste at Hanford and to be allowed to dispose of it as cheap as possible in Hanford's soil - which this EIS is supposed to evaluate and consider alternatives to.

In addition to violating USDOE and NEPA's regulations on public disclosure, Battelle engaged in fraud in that making a material misrepresentation about its financial interest in the outcome of the HSWEIS to obtain the contract to prepare the HSWEIS. These are actionable under USDOE Debarment & Suspension regulations. 10 CFR 1036.305 (a) 1,3. Battelle played a major role in preparing the HSWEIS, especially in responding to comments, many of which were directly regarding Battelle's own interests in importing waste to Hanford for storage, treatment and disposal or prolonged storage prior to processing and disposal at Waste Isolation Pilot Project. NEPA requires the following actions by CEQ, EPA and USDOE that:
a) require that the HSWEIS be withdrawn;
b) the contract with Battelle be rescinded;
c) a new HSWEIS begun with a contractor who has no conflict of interest regarding potential outcomes and decisions to be based on the EIS;
d) forfeiture by Battelle of all fees and costs paid by the U.S. Department of Energy for work on this EIS;
e) imposition of civil and criminal penalties for fraudulently misrepresentation of its interest in the outcome of the HSWEIS 10 CFR 1036.305 (a) 1, 3.

Battelle's conflict of interest in preparing the HSWEIS clearly preclude their production of an objective or unbiased analysis of the issues. This conflict of interest had a material impact on the scope of issues in the HSWEIS, the analysis that was conducted in the HSWEIS, and other aspects of the execution of the HSWEIS and the subsequent meeting and comment processes. These are evidenced in the following:

● Battelle's private and contractual interest in exporting TRU waste to Hanford is the subject of litigation in federal district court brought by Heart of America Northwest, State of Washington, Columbia River Keeper, Sierra Club and Washington Physicians for Social Responsibility. Battelle is shipping this waste to Hanford as part of "the closeout of its nuclear materials research contract", because continued storage of these wastes would require construction of a new shielded facility licensed by the State of Ohio and the Nuclear Regulatory Commission. 67 FR 56990. This action is being taken as part of the Battelle's closeout of its nuclear materials research contract and cleanup of the "privately owned" West Jefferson facility. Id. Construction of new facilities to continue storage of TRU at West Jefferson would "be inconsistent with DOE's goal of early removal of radioactive waste from privately owned sites." Id.

● "DOE no longer needs the facilities for nuclear research, and is contractually obligated to remove contamination so the labs can be used by Battelle without radiological restrictions." USDOE: "Defendants' Opposition to Motion for Preliminary Injunction" at 20; State of Washington, Columbia Riverkeeper, Heart of America Northwest, et al v. Spencer Abraham, Secretary of Energy, and U.S. Department of Energy, 2003, U.S. District Court Eastern District of Washington.

● Battelle rejected the comments that the EIS consider the reasonable alternative of charging generators the fully burdened long term costs of disposal, and that the EIS have a preferred alternative (and, at minimum, for legal compliance, consider one alternative) that ends disposal of wastes in unlined soil trenches by the end of this year and bars continued use of Hanford soil for disposal of offsite wastes due to the cumulative impacts to groundwater, and other harm to health and the environment.

● Battelle failed to disclose that it has a substantial conflict of interest which may be the proximate cause of this draft EIS's failing to consider the route and waste specific potential impacts of transporting TRU, LLW and MW to Hanford.

● Battelle played a major role in preparing EIS, especially in responding to comments, many of which were directly regarding Battelle's own interests in importing waste to Hanford for storage, treatment and disposal or

prolonged storage prior to processing and disposal at WIPP.

● The HSWEIS fails to disclose Battelle shipped Remote Handled LLW, as late as 2002, and fails to describe inventory and current conditions of burial grounds. The EIS fails to disclose the track record of Battelle and other offsite generators failing to properly characterize and manifest wastes prior to shipping and prior to disposal in LLBG. This failure to describe actual conditions of LLBGs has been noted by Washington State and numerous other commenters as a significant failure of the HSWEIS to meet NEPA requirements. Battelle has a conflict of interest regarding disclosure of legal violations and their potential impact, as well as conflict of interest regarding any disclosure of impacts that would limit offsite waste. Mitigation requirements that should be imposed would significantly impact Battelle as a generator of waste.

● Battelle is both a liable person and potentially responsible party under the federal CERCLA (42 USC 9601 et seq.) and Washington's Model Toxics Control Act (RCW 70.105D) as a generator of waste that has been, or may potentially be, released to the environment at the Hanford site, and which is the focus of this EIS. Battelle has a significant financial interest in continuing to generate waste at Hanford and to be allowed to dispose of it as cheap as possible in Hanford's soil - which this EIS is supposed to evaluate and consider alternatives to. Heart of America Northwest and numerous other commenters, including the Hanford Advisory Board, have urged that this EIS consider the reasonable alternative of charging offsite generators the fully burdened long-term costs of disposal of waste. Currently, USDOE charges Battelle and other offsite generators only approximately 50% of the present costs of disposal. Heart of America Northwest and the Hanford Advisory Board have commented and advised USDOE and Washington Ecology that only fully characterized wastes should be shipped to Hanford, to the degree that any offsite wastes are shipped. This is a major issue of public concern regarding this EIS. However, Battelle has a major conflict of interest in that it seeks to ship to Hanford uncharacterized Remote Handled Transuranic and other wastes.

Battelle failed to disclose that it has a major conflict of interest in preparing responses to the comments of the public, Members of Congress, Heart of America Northwest and the Hanford Advisory Board rejecting the comments that the EIS consider the reasonable alternative of charging generators the fully burdened long term costs of disposal, and that the EIS have a preferred alternative (and, at minimum, for legal compliance, consider one alternative) that ends disposal of wastes in unlined soil trenches by the end of this year and bars continued use of Hanford soil for disposal of offsite wastes due to the cumulative impacts to groundwater, and other harm to health and the environment. Consequently, all those involved in submitting public comments on the HSWEIS were deprived of a meaningful opportunity to exercise their rights under NEPA to submit public comments based on a discussion of all reasonable alternatives.

We request the Inspector General to investigate how this mismanagement of a major EIS, on which major decisions for the Northwest are proposed to be based, could have been allowed to proceed by Hanford management.

These conflicts of interest require the following actions by CEQ, EPA and USDOE:
1) require that the HSWEIS be withdrawn;
2) the contract for producing the HSWEIS with Battelle be rescinded;
3) a new HSWEIS begun with a contractor who has no conflict of interest regarding potential outcomes and decisions to be based on the EIS;
4) forfeiture by Battelle of all fees and costs paid by the U.S. Department of Energy for work on this EIS; and
5) imposition of civil and criminal penalties for fraudulently misrepresentation of its interest in the outcome of the HSWEIS. 10 CFR 1036.305 (a) 1,3.

THR-0021/003

But there is a conflict of interest. And this was addressed by Secretary O'Leary originally when we bought it up, because the Pacific Northwest National Lab is a polluter. They are also the ones that do most of the risk assessment work at Hanford.

Response

In response to these comments, DOE examined the issues raised and sought additional information from Battelle. As a result of this review, DOE has determined that no basis exists for withdrawal of the HSW EIS. DOE's responses to specific areas of concern expressed in the comments are set out below.

Concern: Battelle has a significant financial interest in continuing to generate waste at the Hanford site and in being allowed to dispose of it as cheaply as possible.

Response: The Pacific Northwest National Laboratory (PNNL) is a DOE national research laboratory located at the Hanford Site that is operated by the Battelle Memorial Institute, through its Pacific Northwest Division, under a long-term cost reimbursement, management and operating (M&O) contract with DOE. PNNL is under contract to DOE to assist in the preparation of the HSW EIS. For purposes of this response and the following four responses, the terms "Battelle" and "PNNL" are used interchangeably. The radioactive wastes that are generated by Battelle's operation of PNNL for DOE under the M&O contract are DOE wastes. It is therefore DOE, and not Battelle, that is responsible for the disposal of these wastes, and it is DOE that determines where and how these wastes will be disposed of. Battelle's right to reimbursement under the M&O contract for its costs is in no way dependent on the waste disposal decisions that DOE makes, and Battelle thus has no financial or other interest in how DOE makes those decisions, and would have no incentive to bias its analysis of the alternative means of disposal in the HSW EIS.

Concern: Battelle has an interest in shipping waste to Hanford from its West Jefferson site so that it may financially benefit from the redevelopment of the West Jefferson site.

Response: DOE has entered into a contract with Battelle for the conduct of the Battelle Columbus Laboratories Decommissioning Project (BCLDP), involving the cleanup of the Battelle Columbus Laboratories (BCL), which includes two sites, Columbus and West Jefferson. The decommissioning contract recognizes that the BCL facilities, while privately owned, were used for radioactive research for DOE or its predecessor agencies. The contract provides that the radioactive waste generated in the decommissioning project is DOE waste. Accordingly, the two BCL sites have been identified as shippers of DOE low level radioactive waste and transuranic waste to the Hanford Site, and waste quantities from the BCLDP are included in estimates of offsite DOE waste that Hanford may receive for disposal or, in the case of transuranic waste, temporary storage. However, it is DOE and not Battelle that will decide where this waste will be sent. In general, Battelle does not have a financial or other interest in the decisions that DOE makes. There is one exception to this general principle. Under the decommissioning contract for the BCLDP, Battelle is obligated to contribute a cost share of 10% of the decommissioning costs for the project, because a portion of the BCL waste was generated by private, as opposed to government, activities. Thus, in theory, Battelle would have an interest in keeping the decommissioning costs as low as possible. However, Battelle's 10 percent cost share applies only to current-year waste handling costs (e.g., acceptance review and waste transfer) and not to long-term disposal costs. The HSW EIS focuses on long-term disposal alternatives, and thus the decisions DOE will make on the basis of the HSW EIS will not affect in any appreciable manner the amount of Battelle's cost under the decommissioning contract. Thus, there is no incentive for Battelle to bias its analyses in the HSW EIS.

Concern: Battelle's generation of waste shipped to Hanford makes it a potentially responsible party under CERCLA and the state of Washington Model Toxics Control Act (MTCA).

Response: By the terms of the Hanford Federal Facility Agreement and Consent Order, the Environmental Protection Agency, DOE and the State of Washington have recognized that DOE is the party responsible for any remedial action necessary for wastes disposed of by DOE at Hanford. All wastes that have been, or are expected to be, disposed of at Hanford from Battelle-operated facilities are wastes for which DOE is ultimately responsible. It is not reasonable to assume that Battelle will bear any significant financial responsibility for environmental remediation work at Hanford, or that Battelle's work on the HSW EIS would

be influenced by the remote prospect that Battelle might incur such responsibility.

Concern: Battelle played a biased and major role in its work on the HSW EIS.

Response: For the reasons stated in the previous responses, DOE believes that Battelle has no significant financial or other interest in the outcome of the HSW EIS. Moreover, DOE believes that its own extensive involvement in the preparation of the HSW EIS precluded the possibility of Battelle injecting bias into the analyses or other parts of HSW EIS. The comment implies incorrectly that DOE turned over the preparation of the HSW EIS to Battelle. In fact, Battelle's role in preparing the HSW EIS was subject at all times to the direction, review and oversight of DOE. Battelle provided a preliminary working draft of the revised draft HSW EIS, which reflected the guidance previously provided by DOE. That preliminary working draft was then thoroughly reviewed, and where appropriate rewritten by, or at the direction of, a multi-disciplinary team of DOE employees working on a dedicated basis over a period of several months. This DOE team included subject-matter professionals in the areas of waste management, nuclear safety and health, natural and ecological resource protection, and transportation, as well as regulatory and legal experts. This team made all major decisions on alternatives, scope and content, as well as responses to comments, in the revised draft HSW EIS and in this final HSW EIS. While Battelle provided technical, drafting and editing assistance throughout this process, it had no authority to make final decisions regarding the content of the HSW EIS, comment responses, or DOE policy. To clarify the extensive involvement and critical roles played by DOE employees in the development of the HSW EIS, Chapter 7 of this final HSW EIS has been revised to set forth more clearly the activities performed by DOE personnel.

Concern: Battelle engaged in fraud in making a material misrepresentation about its financial interest in the outcome of the HSW EIS in order to obtain the contract for work on that document, in violation of DOE's Debarment & Suspension regulations.

Response: After discussions with Battelle, DOE is convinced for the following reasons that Battelle executed the conflict of interest disclosure statements in good faith, in the belief that it had no financial or other interest in the outcome of the HSW EIS. First, as stated in earlier responses, the waste disposed of at Hanford from sites managed by Battelle is DOE waste and, with the minor exception of the 10 percent cost share for current-year handling costs of waste from the BCL sites (which does not apply to long-term disposal costs), Battelle's remuneration under its contracts with DOE does not depend on how or where the waste is disposed of. Thus, Battelle would have no incentive to favor one disposal alternative over another. Second, when Battelle prepared the conflict of interest disclosure statement, Battelle had no reason to believe that its ability to perform under its contract to decommission the BCL facilities depended on the outcome of the HSW EIS. This is because the HSW EIS was not a document that would examine the issue of whether waste from other sites should be sent to Hanford. The decision to dispose of waste from other sites, including the BCL facilities, at Hanford had previously been made as a result of the Waste Management Programmatic EIS issued in 1997 and its related RODs. Third, the operation of PNNL is conducted by Battelle's Pacific Northwest Division, which is a separate division of Battelle that is not responsible for, or involved in, the operation of the Battelle Columbus Laboratories in Ohio. In sum, DOE has found no evidence that PNNL, in executing its conflict of interest disclosure statement, made any material misrepresentation or had any intent to mislead or defraud the government. Accordingly, under the regulations governing debarment and suspension, sanctions to be imposed only in the public interest for the Government's protection are not implicated as suggested in the comment.

Concern: The EIS failed to examine transportation risks of shipping waste to Hanford.

Response: The final HSW EIS includes new transportation analyses that examine the impacts of low level, mixed low level and transuranic waste shipments from various generator sites to the Hanford Site.

Concern: Generators are not properly tracking, characterizing and labeling hazardous waste shipped to

Hanford.

Response: Hanford waste acceptance criteria require LLW and MLLW that are received for disposal to be properly characterized and manifested by the generator. Routine inspections are performed to ensure that these requirements are met; if waste is found not to be not in compliance, the violation is corrected at Hanford at the generator's expense, or returned to the generator.

Comments

L-0041/062

In addition, Oregon is the primary transportation corridor for waste coming to and leaving the Hanford Site. As many as 33,000 shipments of waste could travel across Oregon under actions proposed in the HSW-EIS. The U.S. Department of Energy (DOE) must continue to work closely with Oregon to ensure the safe transport of these radioactive materials as they travel through the state.

Response

We agree.

Comments

L-0044/111

Specifically, the draft does not adequately address either in content or clarity all the information we will need in order to support the full range of decisions about waste treatment, storage, and disposal facilities for Hanford cleanup. Our concerns are detailed in the attached summary of over-arching issues and concerns, and in a table of specific comments related to the text of the document and its appendices.

L-0044/115

Let us be clear that in our regulatory decision making, we need to obtain complete information. If these concerns are not addressed in the Final EIS, Ecology will have to seek additional analysis, thereby complicating future decision making.

L-0044/136

Any new waste treatment facility that the USDOE might wish to construct would require a dangerous waste permit and thereby a thorough environmental review. Ecology recognizes efforts conducted by the USDOE to conduct cultural and historic resource reviews and to identify Federal endangered species to date; however, more thorough reviews must be conducted to support any dangerous waste permit.

Response

DOE has considered the specific comments from the State of Washington, as has been the case with all commenters. DOE's responses to specific comments have resulted in changes to the HSW EIS and are included in this Comment Response Document.

The HSW EIS evaluates the consequences of various site-specific alternatives to the ongoing waste management program at Hanford, consistent with WM PEIS decisions regarding certain TRU, LLW, and MLLW streams. A discussion of the WM PEIS and other NEPA review documents relevant to the HSW EIS can be found in Volume I Section 1.5.

The HSW EIS summarizes its analyses in seven (7) sections in a first volume. The supporting technical detail is presented in fifteen (15) appendixes in a second volume. The Comment Response Document makes up the third and fourth volumes of the HSW EIS.

The HSW EIS, as a NEPA document, is not intended to function as, or contain the same information as, a compliance agreement, a permit application, or a management plan under other Hanford regulatory programs.

NEPA Compliance

The HSW EIS provides information to support DOE's decision-making process at Hanford, and DOE recognizes that additional specific information will be needed to support future regulatory processes.

Comments

L-0050/004

Page 4.69, Table 4.12. WDFW disagrees with DOE's response to our comments on the pygmy rabbit. The pygmy rabbit should be included on this table. Central Hanford is being considered by both the WDFW and the USFWS as a possible re-introduction site.

Response

DOE stands by its previous response.

Comments

L-0044/089

Sec. 1.6.6, pp. 1.31-32 These three paragraphs are generic and bureaucratic. They do not convey clearly what people can expect next with regard to this EIS and what decisions can be expected when.

Response

Consistent with NEPA requirements, Volume I Section 1 of the HSW EIS describes the purpose and need for agency action, identifies the proposed action and alternatives that are evaluated, and the decisions that DOE expects to make on the basis of analysis. See Volume I Sections 1.2, 1.3, and 1.7. Volume I Section 1.6 describes the technical process for issuing this EIS and the ROD(s).

Comments

L-0052/002

This is a huge undertaking by the federal government, on a scale similar to that of the complex-wide Waste Management Programmatic EIS. Too much is at stake to move rapidly through this process for the sake of acceleration. The NEPA process anticipates sequential steps. We need clearer statements about what decisions need to be made, not statements of decisions being made when there remains a significant lack of appropriate tools to make those decisions. Because of the complexity of this huge clean-up effort, there are many short term decisions and actions to be taken prior to long-term decisions being made. It is vital to the health of the tribal nations and the United States that closure of any clean-up activity occur only when we have capability to effectively isolate or remediate the contaminated resource.

Response

Consistent with NEPA requirements, Volume I Section 1 of the HSW EIS describes the purpose and need for agency action, identifies the proposed action and alternatives that are evaluated, and the decisions that DOE expects to make on the basis of analysis. See Volume I Sections 1.2, 1.3, and 1.7. Volume I Section 1.6 describes the technical process for issuing this EIS and the ROD(s).

Hanford is part of a nationwide cleanup effort of over 100 DOE sites and cooperates with these sites in the cleanup. DOE's approach is to consolidate and dispose of radioactive waste from all its cleanup efforts in the safest and most cost-effective manner possible. Hanford and other sites would be available for the disposal of low-level waste and mixed low-level waste; WIPP is used for the disposal of TRU waste; Yucca Mountain is expected to be used for the disposal of high-level waste and spent nuclear fuel.

DOE is committed to cleaning up the Hanford Site in accordance with the Tri-Party Agreement (TPA) and applicable environmental requirements under federal and state laws and regulations. As of February 1, 2003, DOE had met 99% of its TPA milestones on or ahead of schedule. A lot in the way of cleanup has happened at Hanford over the last decade. Portions of the site have already been cleaned up, removed from the

National Priority List (NPL), and released for other uses (e.g., the 1100 Operable Unit). As part of the river corridor cleanup, DOE is remediating contaminated soil sites, decommissioning the plutonium production reactors and associated facilities, removing production reactor fuel from the K Basins to interim storage in the 200 Area, and treating groundwater contaminated by past operations. Groundwater contamination beneath the Hanford Site is being studied and remediated by the ongoing CERCLA program in accordance with the Tri-Party Agreement. The Hanford clean-up effort is expected to be completed in 2035, followed by a long-term stewardship program that ensures waste remaining onsite is appropriately managed. See Volume II Appendix N, Section N.2.4. See Volume III Section 2, Item 6 of the CRD for more examples of cleanup at Hanford.

The WM PEIS (DOE 1997b) was a comprehensive evaluation of DOE nationwide waste management. The WM PEIS evaluated a broad suite of alternatives for waste management across the DOE complex, including managing most waste at generator facilities, or consolidating waste management at fewer sites that have existing facilities suitable to accept waste from other facilities. The general result of the WM PEIS was that radioactive and hazardous wastes generated at a DOE site should be disposed of at that site unless the site was not capable of or not technically able to support those actions. DOE determined there was sufficient information in the WM PEIS to support decisions regarding the sites that were suitable for long-term waste management missions. Those decisions included processing and disposing of Hanford waste at Hanford, and the importation of wastes from other sites that could not adequately handle them. Decisions made as part of the WM PEIS made Hanford available for the disposal of low-level waste and mixed low-level waste from other DOE generators. The initial WM PEIS decisions related to LLW, MLLW, and TRU waste were issued between January 1998 and February 2000.

Additional wastes will be generated as part of the cleanup of Hanford and other DOE sites. The HSW EIS evaluates several alternatives for the storage, treatment, and processing of wastes from onsite and offsite generators, and a range of waste receipts at Hanford to encompass the uncertainties regarding quantities of waste that would ultimately be managed at the site. Hanford would receive some LLW, MLLW, and would temporarily store some TRU waste from other DOE sites. Plutonium production, the source of most of the waste created, has stopped at Hanford. TRU waste, high-level waste, and spent nuclear fuel will be sent to underground repositories in other states that have been designed to safely contain the waste. Many more curies of waste will be sent offsite from Hanford than will be received from offsite.

The Hanford area has been extensively studied and determined to be suitable for disposal of DOE and commercial waste. The impacts of disposing various quantities and types of waste are discussed in this HSW EIS as well as previous NEPA documentation. See Volume I Section 1.5. The evaluations in the HSW EIS provide a basis with which to determine the impacts of varying quantities of offsite waste at Hanford. The waste volumes evaluated include a Lower Bound waste volume consisting mainly of Hanford waste, and an Upper Bound volume that includes additional quantities of offsite waste that Hanford might receive consistent with WM PEIS decisions.

The HSW EIS considers a wide range of alternatives for disposal of low level waste in both lined and unlined facilities. Lined trench alternatives include leak detection and leachate collection capabilities. The use of unlined trenches for disposal of low level waste is an established, legal, and environmentally protective method of low level waste disposal at both DOE and commercial facilities. As such, it is a reasonable alternative, under CEQ regulations, and must be analyzed. The preferred alternative is to dispose of low level waste in newly constructed lined disposal facilities as soon as they are available. For purposes of analysis the HSW EIS assumes this would occur by 2007. All MLLW is currently, and will continue to be, disposed of in lined facilities. Groundwater monitoring is conducted according to TPA requirements, the Hanford Dangerous Waste Management permit, and DOE Orders. Groundwater monitoring will be expanded as necessary according to agreements between DOE and regulatory agencies to support future waste management operations.

NEPA Compliance

The HSW EIS evaluates impacts to the Columbia River and downstream populations for about 10,000 years. For all alternatives analyzed in this HSW EIS, DOE has analyzed the long-term movement of contaminants through soil and groundwater to the Columbia River. In all cases, it found that the water quality of the Columbia River would be virtually indistinguishable from the current river background levels. The concentrations of all the constituent contaminants were well below benchmark drinking water standards at a hypothetical well located near the Columbia River. The impacts of groundwater reaching the river are discussed in Volume I Section 5.3 and Volume II Appendix G. See also Volume I Sections 5.11 and Volume II Appendixes F, G, and L. Evaluations in the WM PEIS, the HSW EIS, and related NEPA documents indicate that additional wastes could be handled at Hanford without complicating future remediations, or diverting resources or disposal capacity from other Hanford cleanup activities.

Several mitigation measures have been built into the alternatives addressed in the final HSW EIS, including installation of barriers, liners, and leachate collection systems in disposal facilities; treatment of MLLW to meet applicable RCRA and state requirements; and in-trench grouting or use of HICs for Cat 3 LLW and MLLW. Some of these measures reduced the estimated levels of groundwater contamination relative to those presented in the revised draft. As set forth in Volume I Section 5.3, constituent concentrations in groundwater at 1 km from the disposal site are expected to be below the benchmark drinking water standards for the proposed action. Water quality in the Columbia River would be virtually indistinguishable from the current background levels.

DOE does not and will not rely solely on long-term stewardship to protect people and the environment. As indicated in the DOE sponsored report "Long-Term Institutional Management of U.S. Department of Energy Legacy Waste Sites" (National Research Council 2000) "contaminant reduction is preferred to contaminant isolation and the imposition of stewardship measures." Contaminant reduction is a large part of the ongoing cleanup efforts at Hanford. Most of the analyses in the HSW EIS are based on the assumption that long-term institutional controls will no longer be in effect 100 years after closure (about 2150 AD). Long-term groundwater impacts and subsequent human health impacts were determined based on the assumption that caps will degrade and eventually provide no protection (see Volume I Sections 5.3 and 5.11 and Volume II Appendices F and G). In addition, "intruder scenarios" are analyzed to determine the impacts of gaining access to the site (i.e., no institutional controls) and digging or drilling into waste sites (see Section 5.11.2.2 in Volume I and Section F.3 of Appendix F in Volume II). Further information on DOE's long-term stewardship activities can be found in the Long-Term Stewardship Study (DOE 2001a). The discussions of long-term stewardship in Volume I Sections 2.2.7 and 5.18 have been revised in response to comments.

This HSW EIS complies with applicable NEPA requirements. The cleanup of active DOE waste sites and facilities is regulated under the Atomic Energy Act, as well as the applicable provisions of the federal Resource Conservation and Recovery Act, the State of Washington Hazardous Waste Management Act, and the Comprehensive Environmental Response, Compensation, and Liability Act. Volume I Section 6 identifies the major statutes, permits, compliance agreements, and regulatory requirements followed in conducting operations at Hanford Site. Statutes include AEA, CERCLA, RCRA and the State of Washington HWMA. Volume I Section 6.3 discusses the TPA. Volume I Section 6.4 discusses the Dangerous Waste Management permit. Volume I Section 6.19 provides a summary of existing and potential permits (including state approved permits where state decision-making will be necessary) required to construct and operate treatment, storage, and disposal facilities related to the HSW EIS alternatives. Volume I Section 6 has been updated in the final HSW EIS. More specific provisions for cleanup of active Hanford waste sites and facilities are presented in the Tri-Party Agreement and in portions of the Hanford Dangerous Waste Management permit.

In response to public comments, DOE has conducted a route- and generator-specific offsite transportation analysis using updated highway routing and 2000 census data (See Volume I, Section 5.8 and Volume II, Appendix H of this document). The potential impacts identified in the updated evaluation are similar to those presented in the WM PEIS and the WIPP SEIS-II, and would not change conclusions or DOE-wide waste management decisions based on those studies. The HSW EIS estimates that up to 33,900 shipments of LLW,

MLLW, and TRU waste could be shipped to Hanford if the upper bound waste volumes are realized. The actual number of shipments is expected to be less than this.